



*Better Buildings Residential Network  
Peer Exchange Call Series*

*Remodeling – The Biggest Untapped Efficiency  
Opportunity?*

*October 28, 2021*

# Agenda and Ground Rules

- Agenda Review and Ground Rules
- Opening Poll
- Residential Network Overview and Upcoming Call Schedule
- Featured Speakers
  - **Carlos Martín, Harvard Joint Center for Housing Studies, Remodeling Futures Program**
  - **David Pekel, National Association of the Remodeling Industry**
  - **Bill Owens, Owens Construction**
- Open Discussion
- Closing Poll and Announcements

## Ground Rules:

1. **Sales of services and commercial messages are not appropriate** during Peer Exchange Calls.
2. Calls are a safe place for discussion; **please do not attribute information to individuals** on the call.

*The views expressed by speakers are their own, and do not reflect those of the Dept. of Energy.*

# Better Buildings Residential Network

## Join the Network

### Member Benefits:

- Recognition in media and publications
- Speaking opportunities
- Updates on latest trends
- Voluntary member initiatives
- One-on-One brainstorming conversations

### Commitment:

- Members only need to provide *one number*: their organization's number of residential energy upgrades per year, or equivalent.

### Upcoming Calls (2<sup>nd</sup> & 4<sup>th</sup> Thursdays), Except Holidays:

- *11/18: Overcoming Homeowner Lack of Efficiency Knowledge*
- *12/9: Heat Pumps at Scale, the Game Changer – Where Are We Now, and What Will It Take?*

Peer Exchange Call summaries are posted on the Better Buildings [website](#) a few weeks after the call

For more information or to join, for no cost, email [bbresidentialnetwork@ee.doe.gov](mailto:bbresidentialnetwork@ee.doe.gov), or go to [energy.gov/eere/bbrn](http://energy.gov/eere/bbrn) & click Join

# Call Attendee Locations



# Opening Poll

- What is your organization's experience or familiarity with Remodeling and Residential Energy Efficiency?
  - Very experienced/familiar
  - Some experience/familiarity
  - Limited experience/familiarity
  - No experience/familiarity
  - Not applicable



**Carlos Martín**  
**Harvard Joint Center for Housing Studies**  
**Remodeling Futures Program**

# Sizing the energy remodeling opportunity

Carlos Martín

Project Director, Remodeling Futures Program

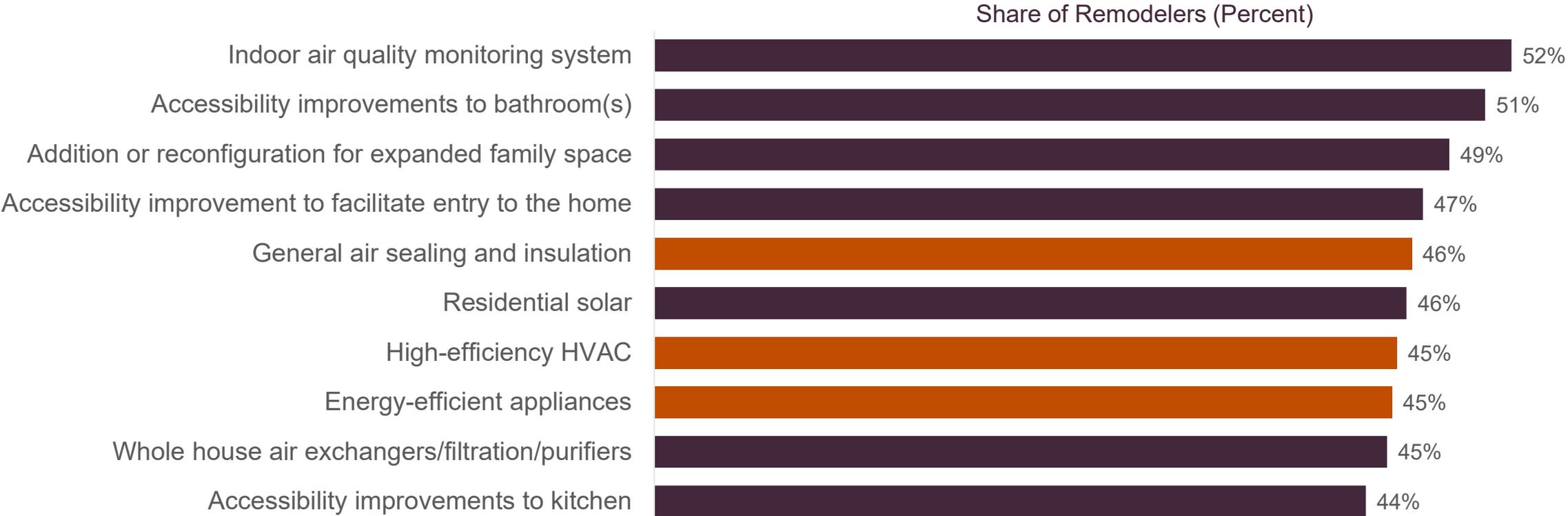
Harvard Joint Center for Housing Studies

*Acknowledgments: Sophia Wedeen, Abbe Will, & the Farnsworth Group*

Remodeling – The Biggest Untapped Efficiency Opportunity?

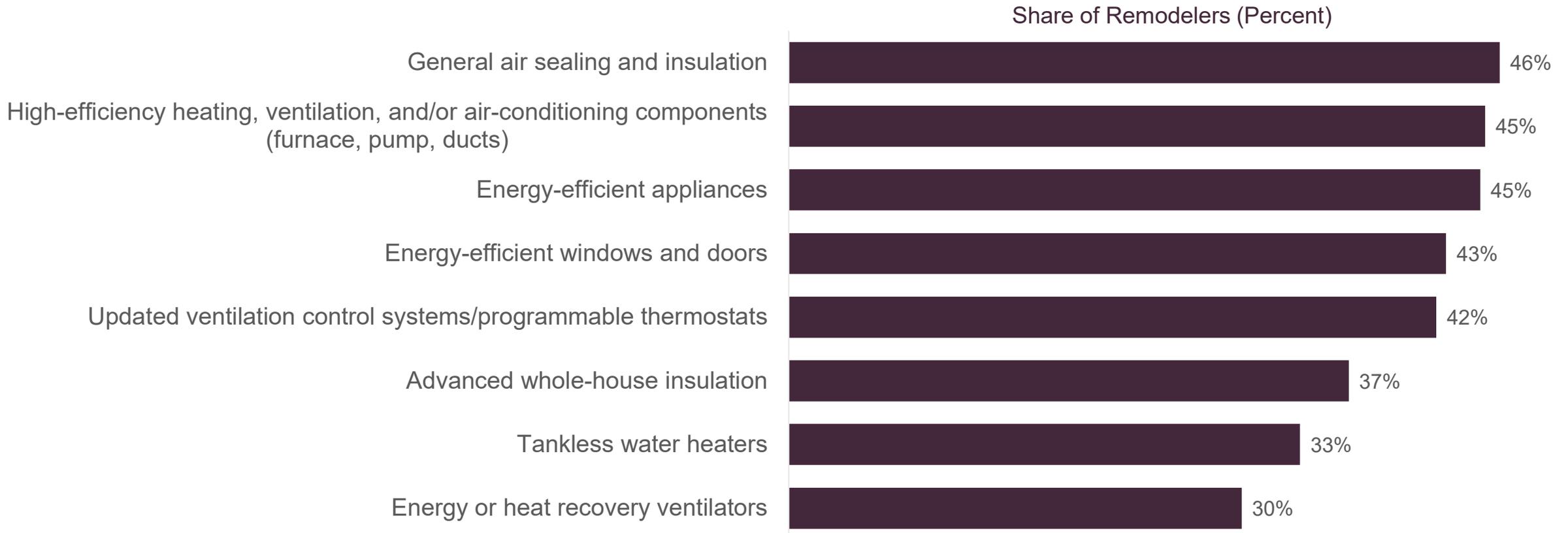
DOE BBRN October 28, 2021

# 3 of the top 10 products being incorporated over the past year were efficiency related



Source: JCHS tabulations of The Farnsworth Group, 2021 Healthy Homes Survey of Contractors.

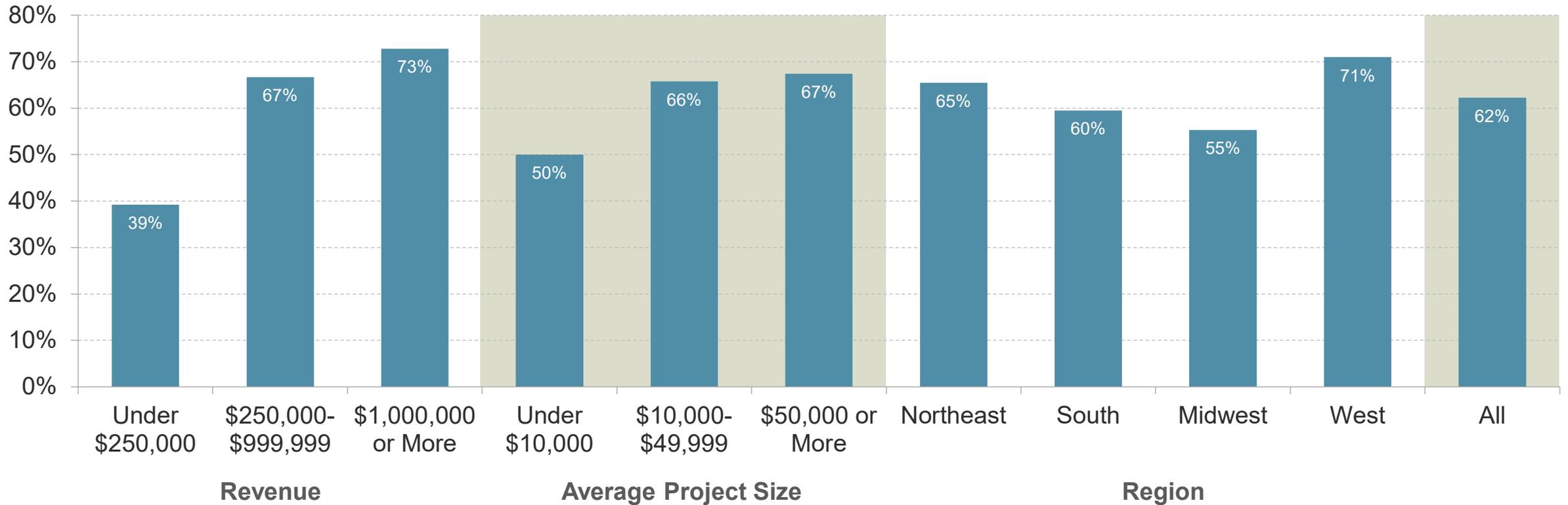
# The Most Frequently Installed Energy Efficiency Remodeling Projects Were Insulation and High-Efficiency Heating Projects



Source: JCHS tabulations of The Farnsworth Group, 2021 Healthy Homes Survey of Contractors.

# Share of contractors reporting EE work in the past year, by contractor characteristic

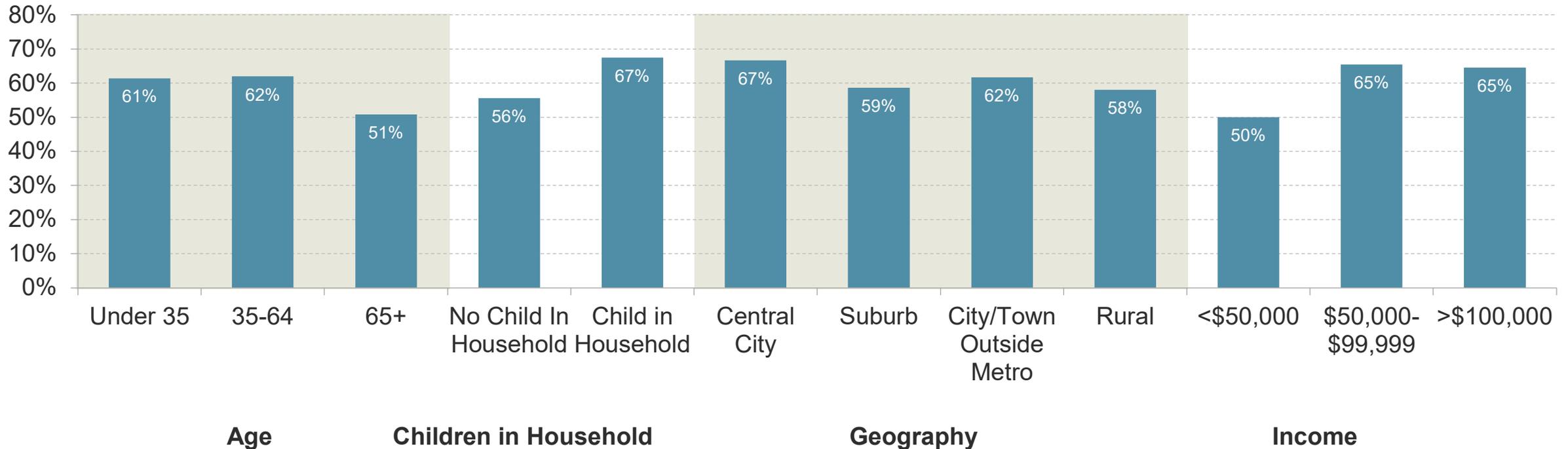
Share of Remodelers (Percent)



Source: JCHS tabulations of The Farnsworth Group, 2021 Healthy Homes Survey of Contractors.

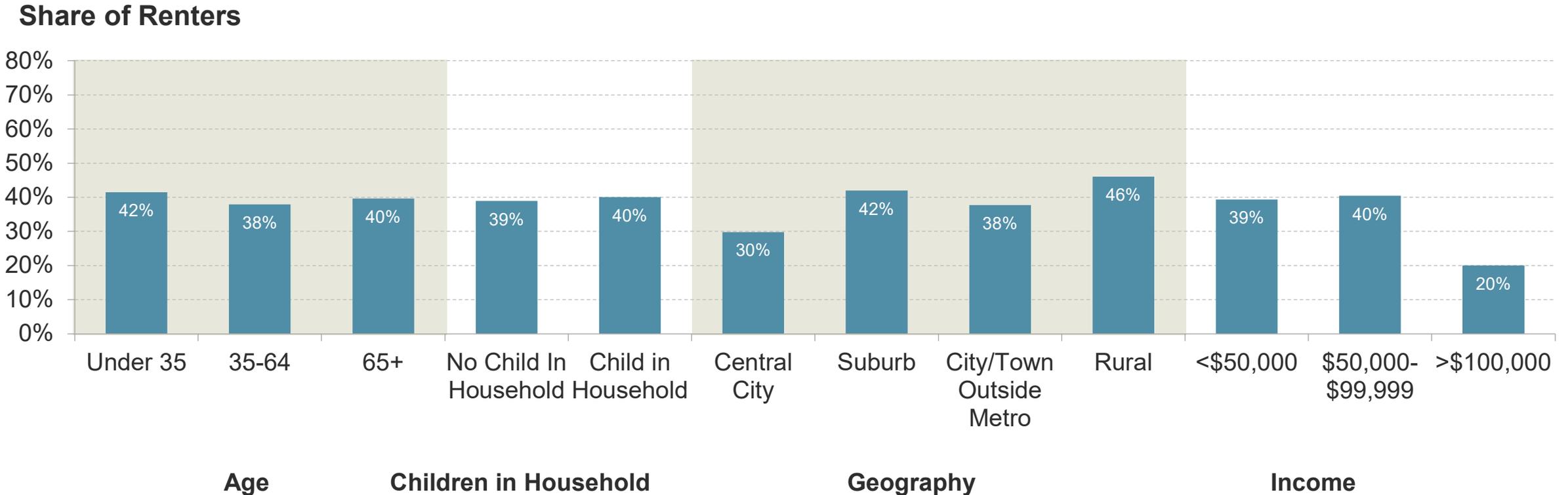
# Share of owners reporting EE work in the past year, by owner characteristic

## Share of Homeowners



Source: JCHS tabulations of The Farnsworth Group, 2021 Healthy Homes Survey of Homeowners.

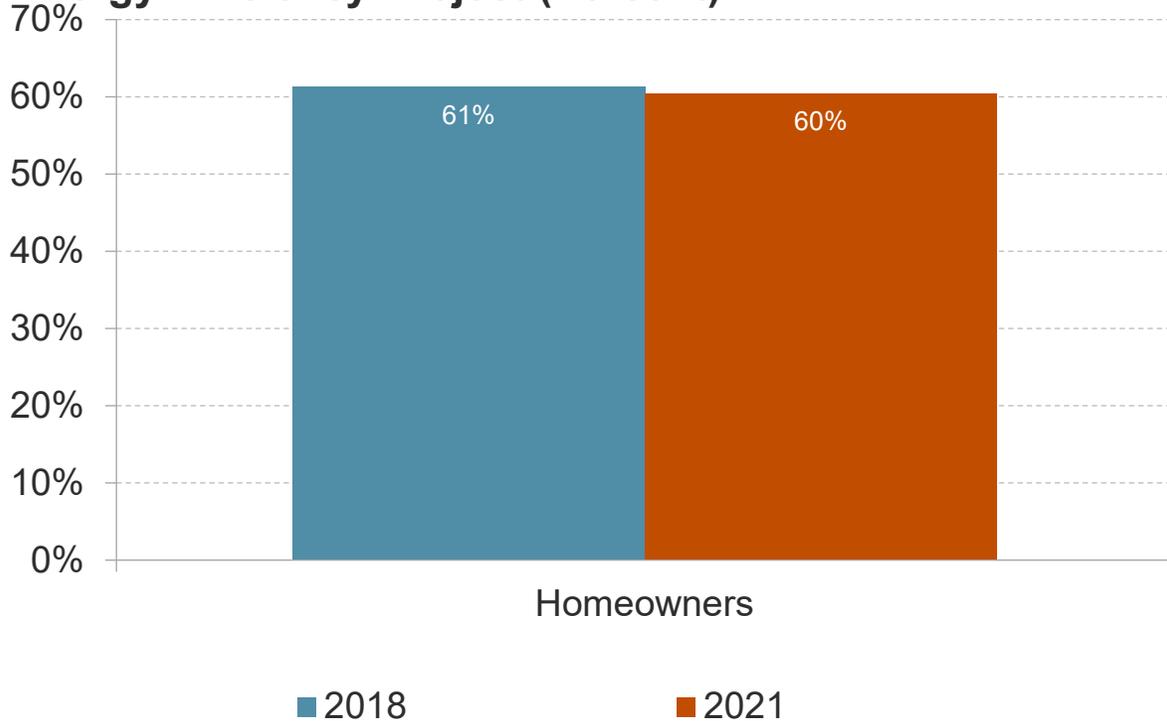
# Share of Renters reporting EE work in the past year, by renter characteristic



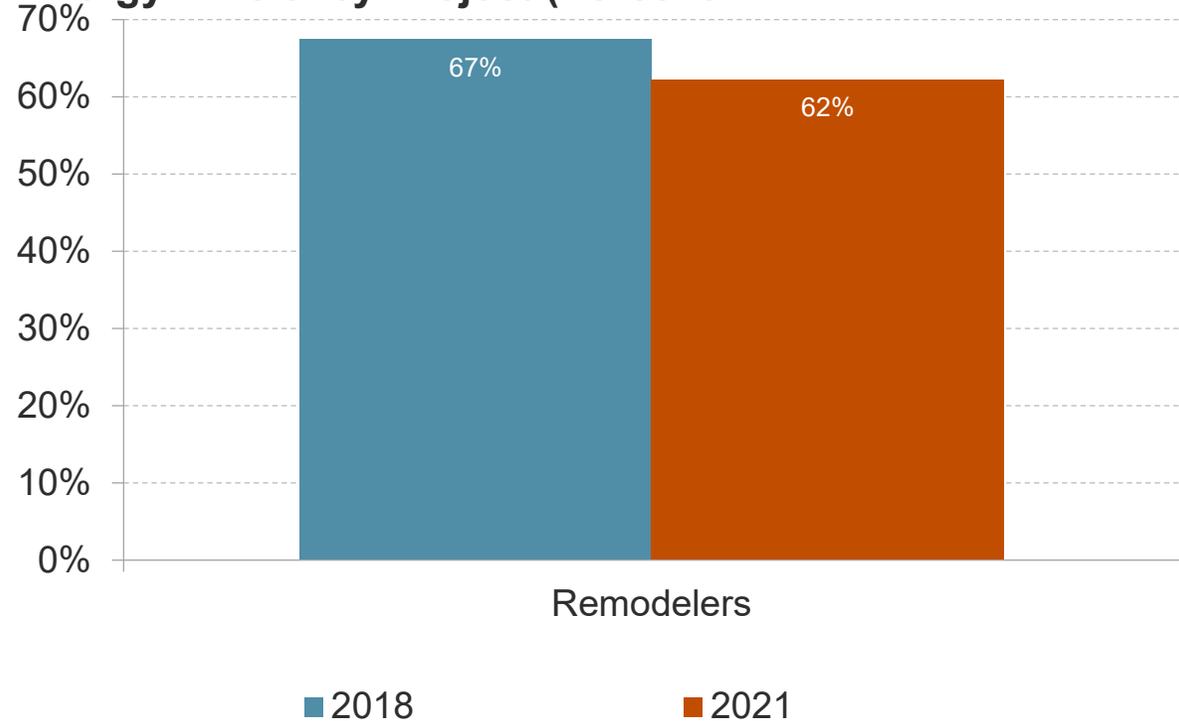
Source: JCHS tabulations of The Farnsworth Group, 2021 Healthy Homes Survey of Renters.

# Remodeling for Energy Efficiency Has Remained Relatively Stable Over Time

Share of Homeowners That Carried out an Energy Efficiency Project (Percent)



Share of Remodelers That Carried out an Energy Efficiency Project (Percent)

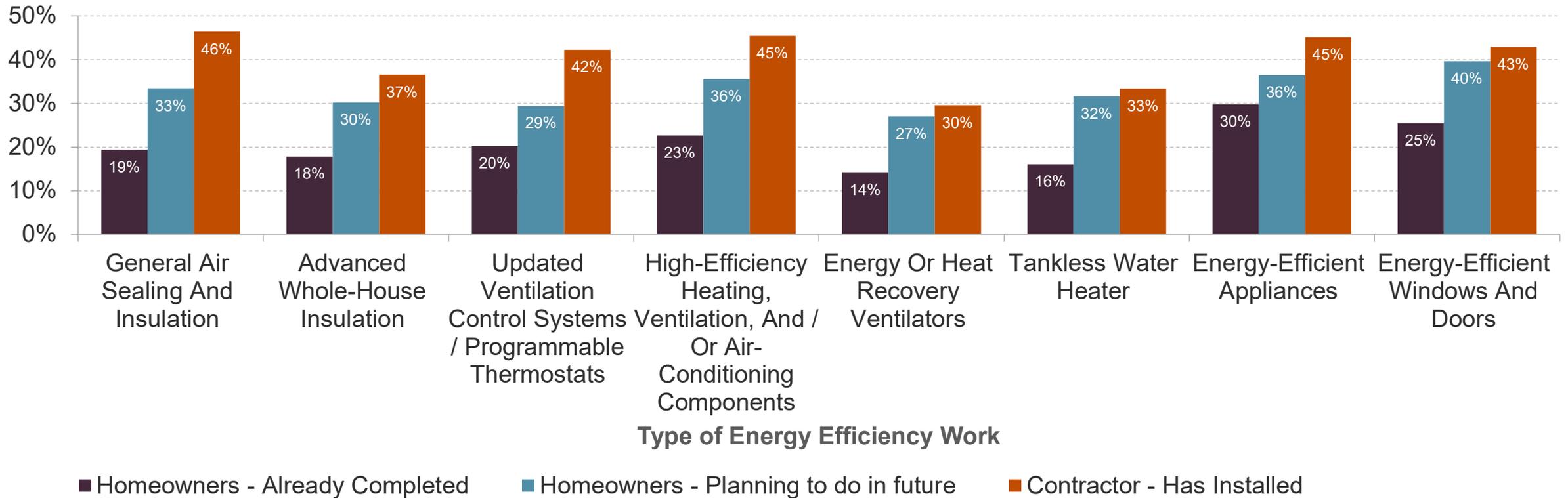


Notes: Sample of 500 homeowners with healthy housing concerns and 315 residential remodeling contractors.

Source: JCHS tabulations of The Farnsworth Group, 2018 and 2021 Healthy Homes Survey of Homeowners and Survey of Contractors.

# Homeowners' Energy Efficiency Projects

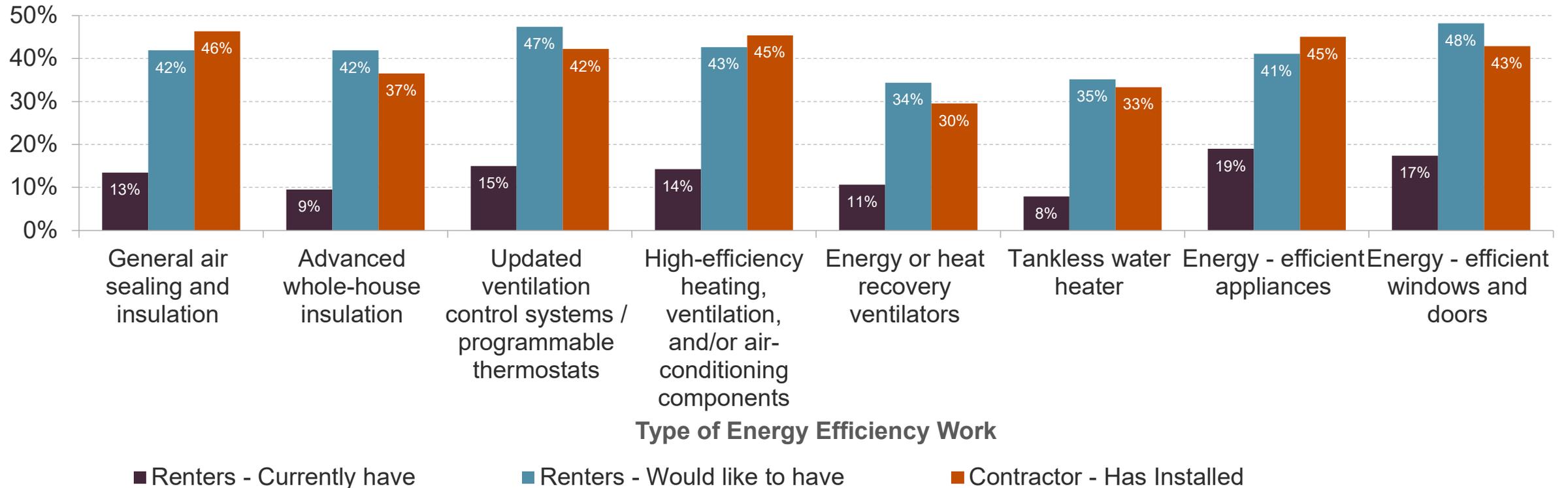
Share of Homeowners/Contractors (Percent)



Notes: Sample of 500 homeowners with healthy housing concerns and 315 residential remodeling contractors.  
 Source: JCHS tabulations of The Farnsworth Group, 2021 Healthy Homes Survey of Homeowners.

# Renters' Energy Efficiency Projects

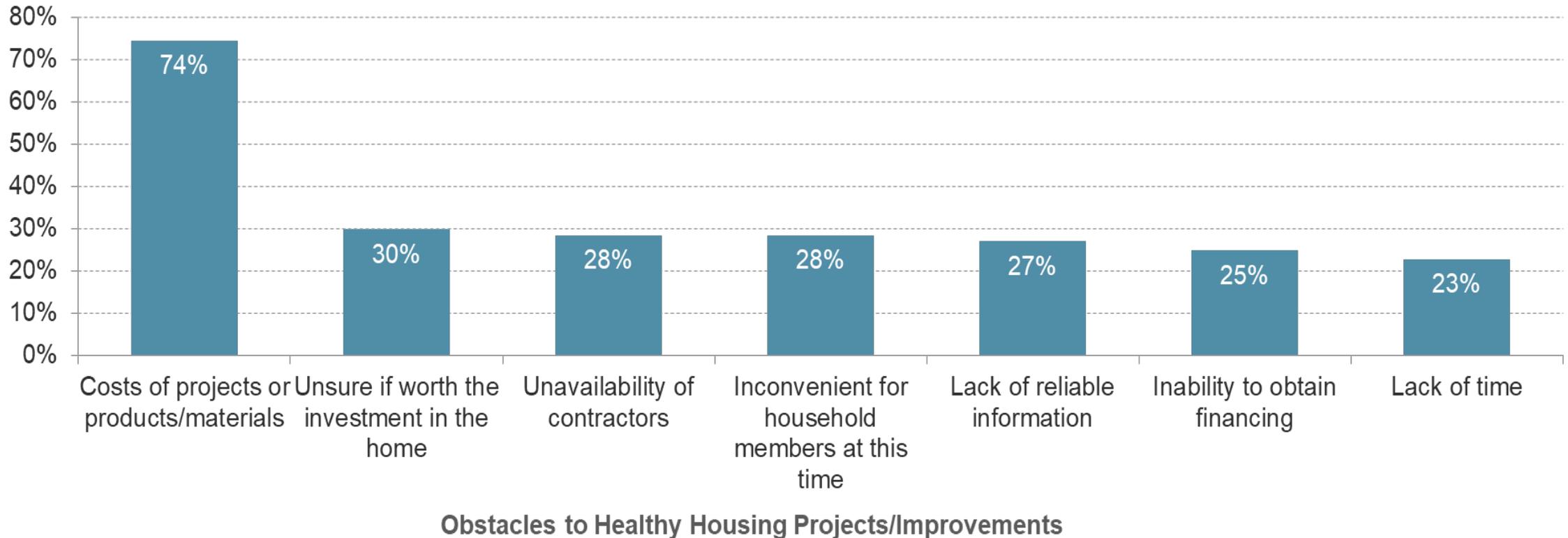
Share of Renters/Contractors (Percent)



Notes: Sample of 302 renters with healthy housing concerns and 315 residential remodeling contractors Source: JCHS tabulations of The Farnsworth Group, 2021 Healthy Homes Survey of Renters.

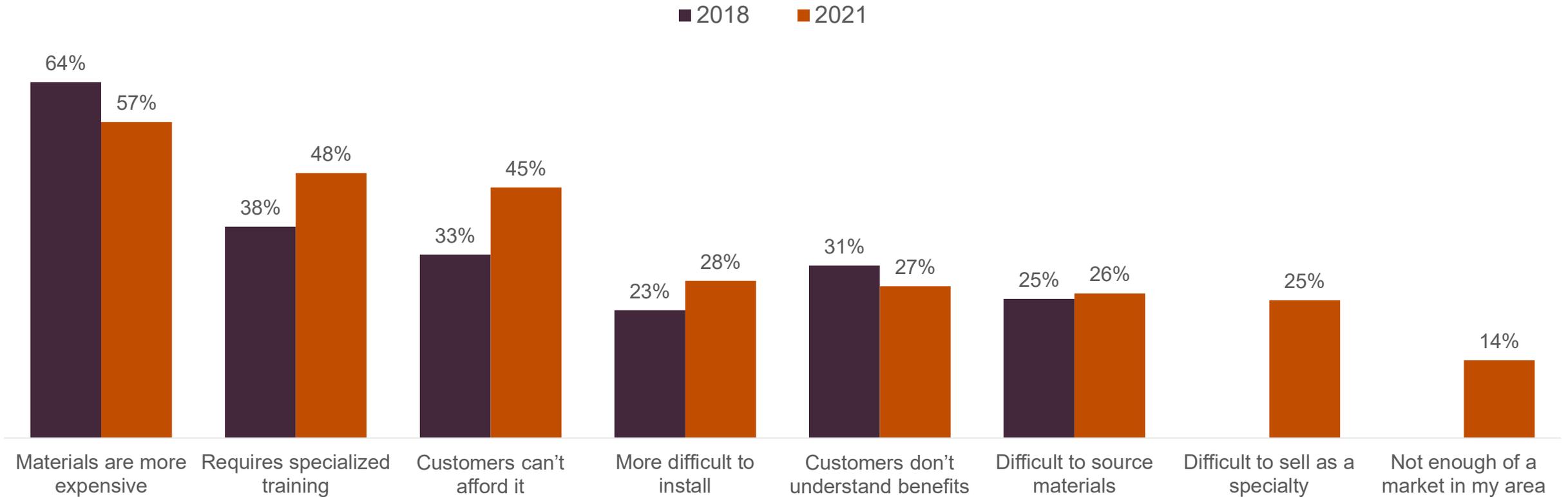
# Owner-reported obstacles, 2021

Share of Homeowners with Healthy Housing Concerns



Source: JCHS tabulations of The Farnsworth Group, 2021 Healthy Homes Survey of Homeowners.

# Contractor reported obstacles, 2018-2021

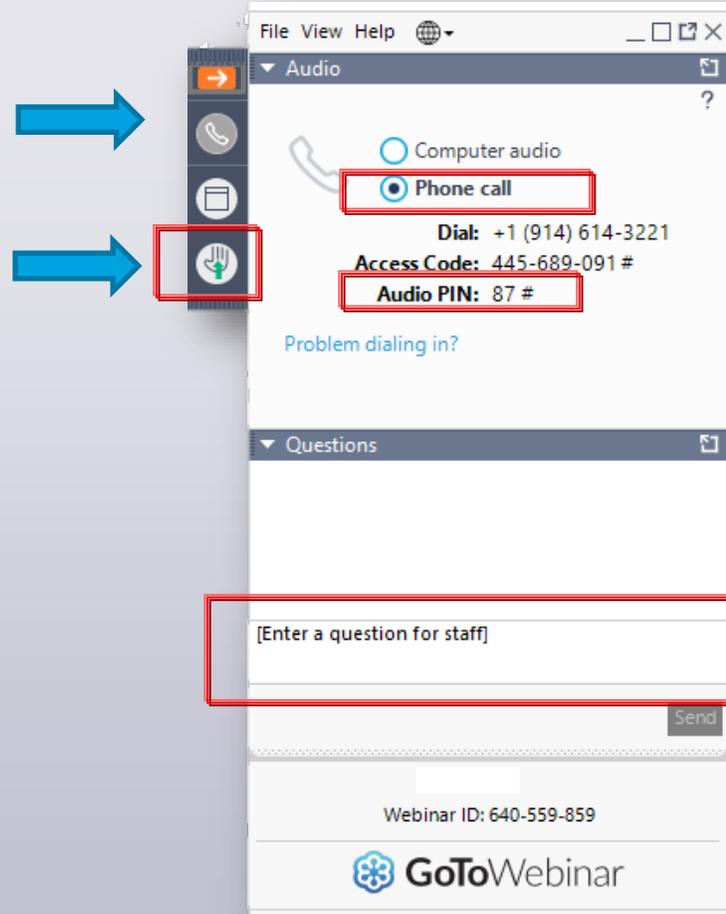


Source: JCHS tabulations of The Farnsworth Group, 2018 and 2021 Healthy Homes Surveys of Contractors.

# Discussion: Share Your Questions

Open and close  
your **control  
panel**

Raise your  
**hand** to enter  
the discussion



Please use the  
**questions box** to  
submit questions,  
comments, or  
alert us of  
technical  
difficulties

If you have called in on a phone today, double check that you've selected telephone as your audio option.



**David Pikel**  
***National Association of the Remodeling Industry  
(NARI)***



# Excellence in Remodeling

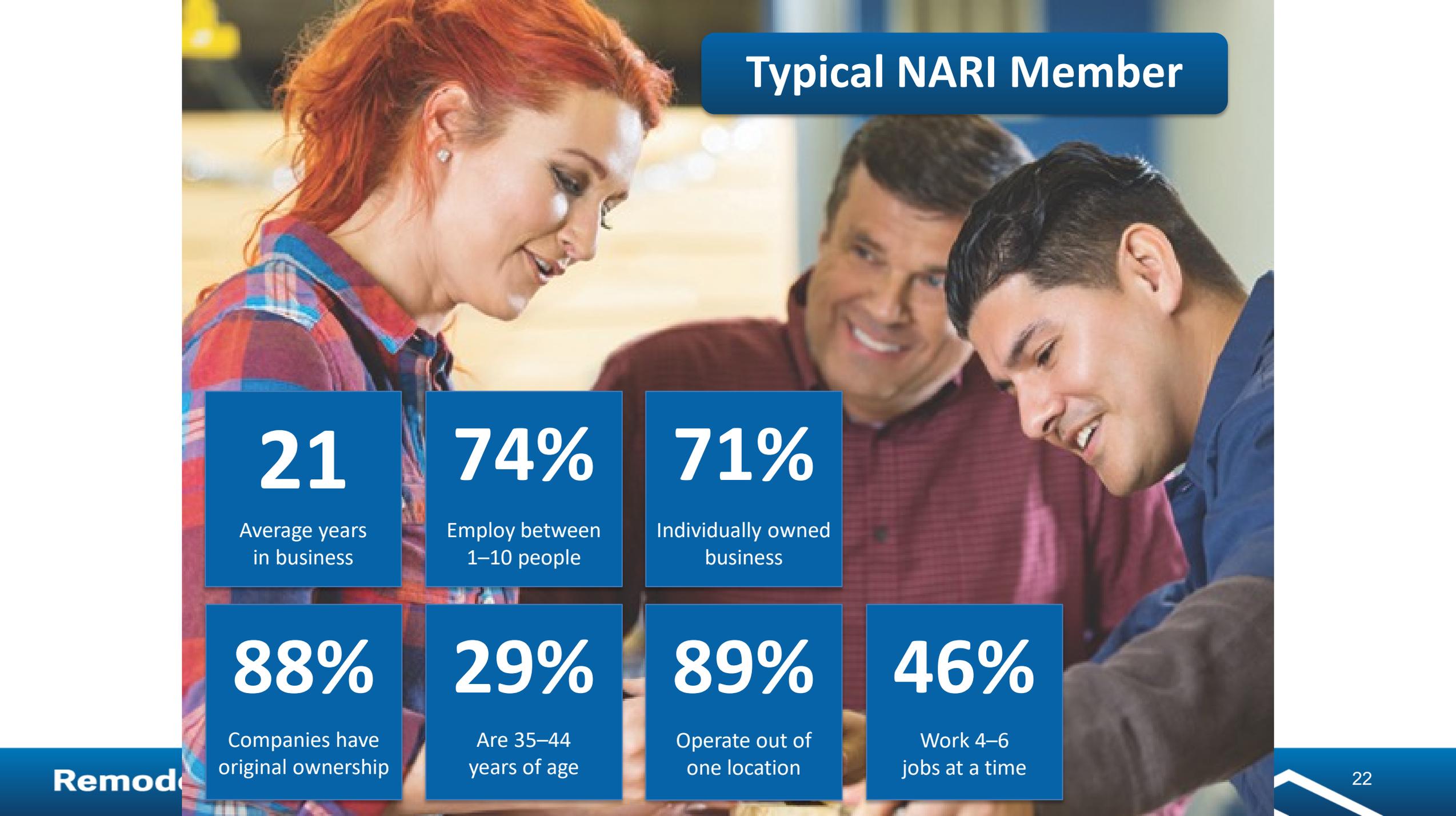
Serving the Industry  
Supporting Consumers as a Trusted Resource  
National Association of the Remodeling Industry



## NARI's Mission

To advance and promote the remodeling industry's professionalism, product and vital public purpose.

**Our Promise:  
Remodeling Done Right™.**

A photograph of three people—a woman with red hair on the left and two men on the right—smiling and looking at a screen together. The background is a blurred indoor setting.

## Typical NARI Member

**21**

Average years  
in business

**74%**

Employ between  
1–10 people

**71%**

Individually owned  
business

**88%**

Companies have  
original ownership

**29%**

Are 35–44  
years of age

**89%**

Operate out of  
one location

**46%**

Work 4–6  
jobs at a time



**NARI's Members adhere  
to the Code of Ethics**





NATIONAL ASSOCIATION OF  
THE REMODELING INDUSTRY  
**Remodeling Done Right.™**

# Certification



# Leading the Industry with Eight Certifications:

- Professional development
- Highest standards
- Deep skill and knowledge



**Master Certified Remodeler (MCR)**

**Master Certified Kitchen & Bath Remodeler (MCKBR)**

**Certified Remodeler (CR)**

**Certified Kitchen and Bath Remodeler (CKBR)**

**Certified Remodeling Project Manager (CRPM)**

**Certified Lead Carpenter (CLC)**

**Universal Design Certified Professional (UDCP)**



## Delivering Consumer Trust

The Industry's Only Accreditation Program



# NARI CotY<sup>™</sup> AWARDS



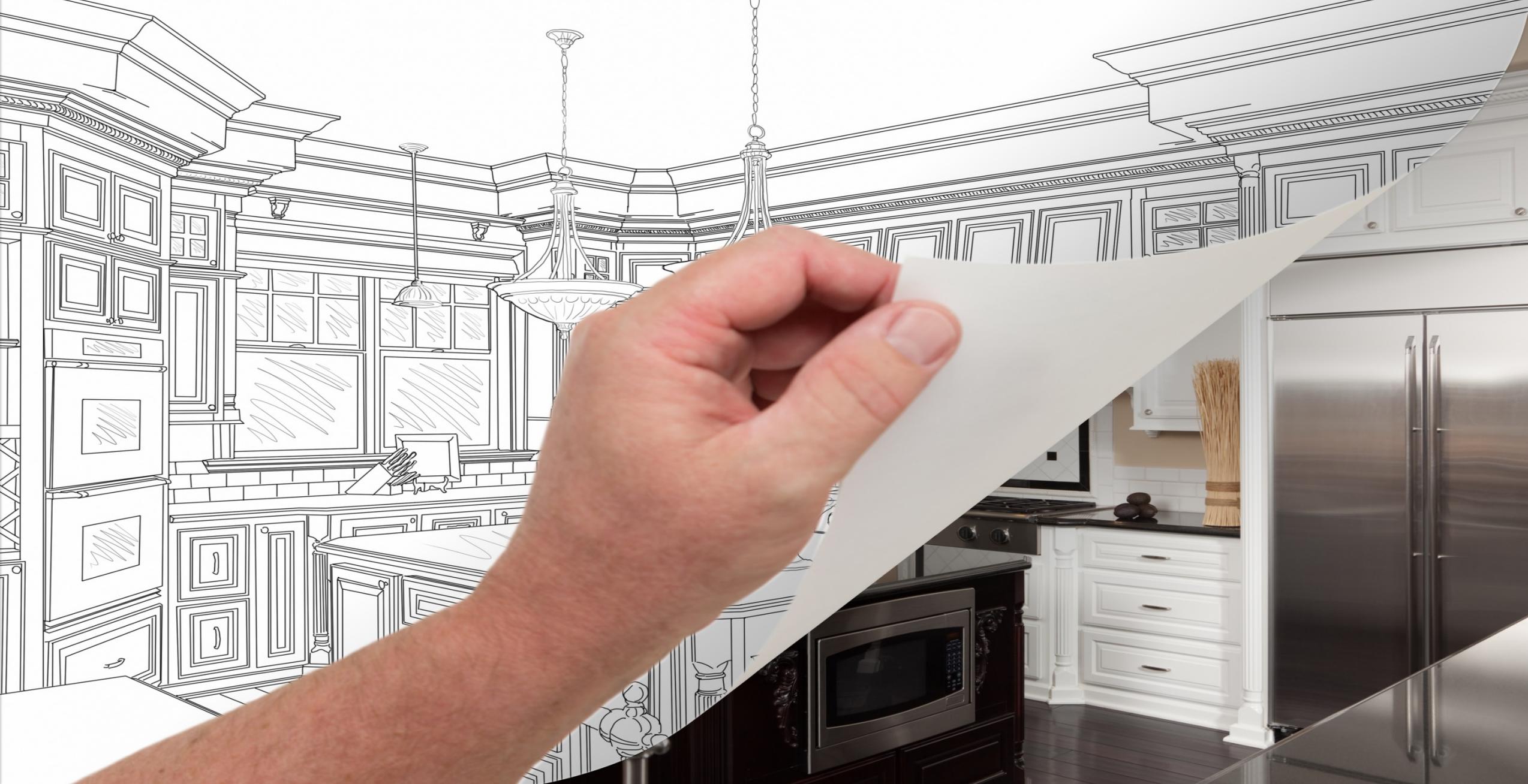


# Workforce Development



# Developing Interest in the Skilled Trades





**Supporting NARI Members,  
Industry Partners and  
Consumers for  
21<sup>st</sup> Century Remodeling**





NATIONAL ASSOCIATION OF  
THE REMODELING INDUSTRY

**Remodeling Done Right.™**





**Bill Owens**  
*Owens Construction*

# Remodeling – The Biggest Untapped Efficiency Opportunity?

Perspectives from a builder  
and remodeler



# National Association of Home Builders (NAHB) – Deep Energy Retrofits Task Group

- Charge: Identify and develop energy efficiency and high performance retrofit education tools, research and resources for the residential construction industry.
- Step 1: Identify existing Federation policy

**2018.7 No. 4 Energy Policy Statement**  
NAHB, as a long-standing proponent of energy efficiency, maintains its commitment to research, development and implementation of cost-effective energy-saving products, building techniques, and financing practices for new and **existing buildings**.

## **11. Retro-fitting for energy efficiency**

Supports retrofit and energy audit programs that repay initial costs through savings in operating costs, over a reasonable period of time; and urges all levels of government to recognize that programs to promote weatherization of existing housing are more effective than programs that subsidize high utility payments;

## **12. Energy in Existing Homes**

Urges Congress, state legislatures and local governments to work with public and private entities to develop and implement incentives that assist home owners of existing properties in reducing energy consumption to the extent that it is cost effective. Supports and encourages the development of technologies, products, and methodologies that can assist in reducing energy usage in existing homes **as long as they are affordable and cost-effective**. Supports streamlined approval processes to limit delays for these programs.

More context:  
NAHB task  
group

Step 2: Member homework – what's happening in different parts of the country in terms of:

- Existing monetary incentives or state tax credits available for energy retrofits;
- Tools/programs that are available currently in your area (e.g. PACE, loan programs, etc.);
- Local government policies that influence the green remodeling market (e.g. energy codes, electrification goals, etc.); and
- Current roadblocks inhibiting affordable deep energy retrofits.

## Step 3: Review Member Homework Results

- States and utilities have some rebates and supporting programs, but many are piecemeal incentives
- Incentives tend to be homeowner-oriented, not for builders doing deep energy retrofits
- Canada has more robust incentives such as grant programs, a voluntary labeling program for net zero renovations, income-based incentives, and more



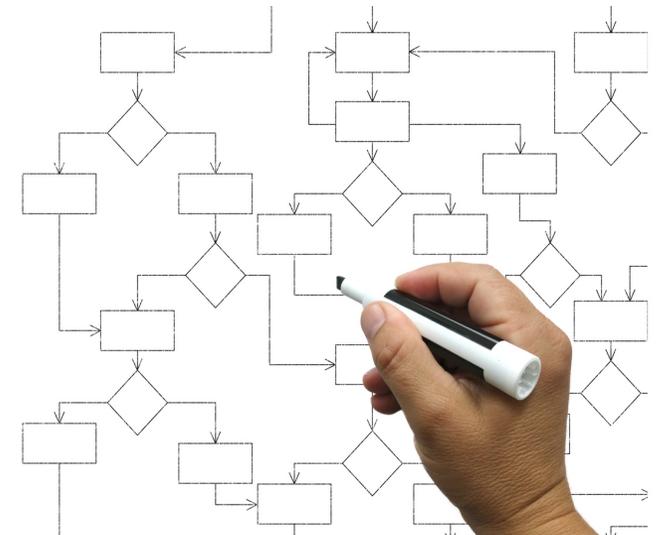
# Challenges and Opportunities

- Lack of consistent incentives beyond nominal utility rebates
- Lending market not quite set up for making energy retrofit improvements to existing homes
- Consumer communication and lack of knowledge, not knowing where to start
- Huge opportunity for builders to expand their business
- Opportunity to make an impact in fixing inefficient homes to curb greenhouse gas emissions
- Plenty of existing housing stock



# Potential Resources to Help Remodelers

- Resource to amplify existing software programs that model for energy improvements
  - Matrix to compare/contrast functionalities of different modeling programs
- Roadmap or flow chart for what the best strategies are for pursuing deep energy retrofits based on different inputs (if X then Y), which could include:
  - Climate zone
  - Age of home
  - Housing type/style
  - Fuel type
  - Water heating
  - Square footage
  - State of the building envelope



Remodeler's  
Perspective-  
the  
marketplace



- Average age of home varies regionally
- Yet, 130,000,000+ “opportunities”
- Appreciated by a small sector of homeowners
- Heavy investment in “new to you” and gentrification

Remodeler's  
Perspective-  
the  
opportunities

- Every remodel is an opportunity
- Existing stock is affordable housing
- Homeowners will listen; home's "mpg"
- Organic/local programs to emulate/build scale



# Remodeler's Perspective- the challenges

- Few incentives
- Cheap energy
- Code compliance limited to remodeled space
- LBP, asbestos, hidden conditions
- Granite countertops!



Remodeler's  
Perspective-  
what's next

- Focus on IAQ and IEQ
- Existing home "Energy Star"
- Balanced residential energy sources
- Financial tools to incentivize EE investment

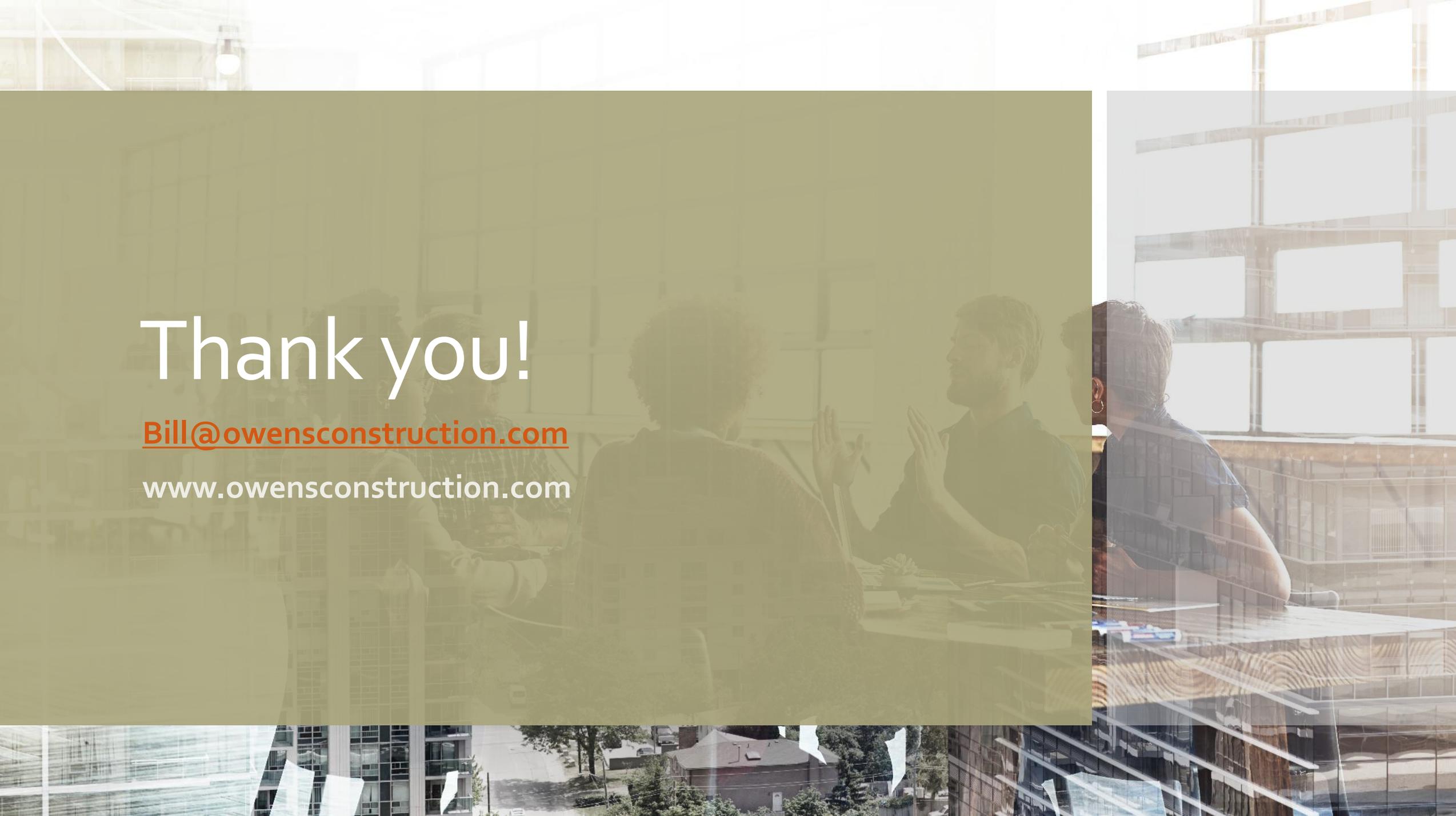


con't.

Remodeler's  
Perspective-  
what's next

- Lower payback period on life-cycle costs
- Look beyond the border
- Influence future model codes to encourage more robust, cost-effective deep energy retrofits





# Thank you!

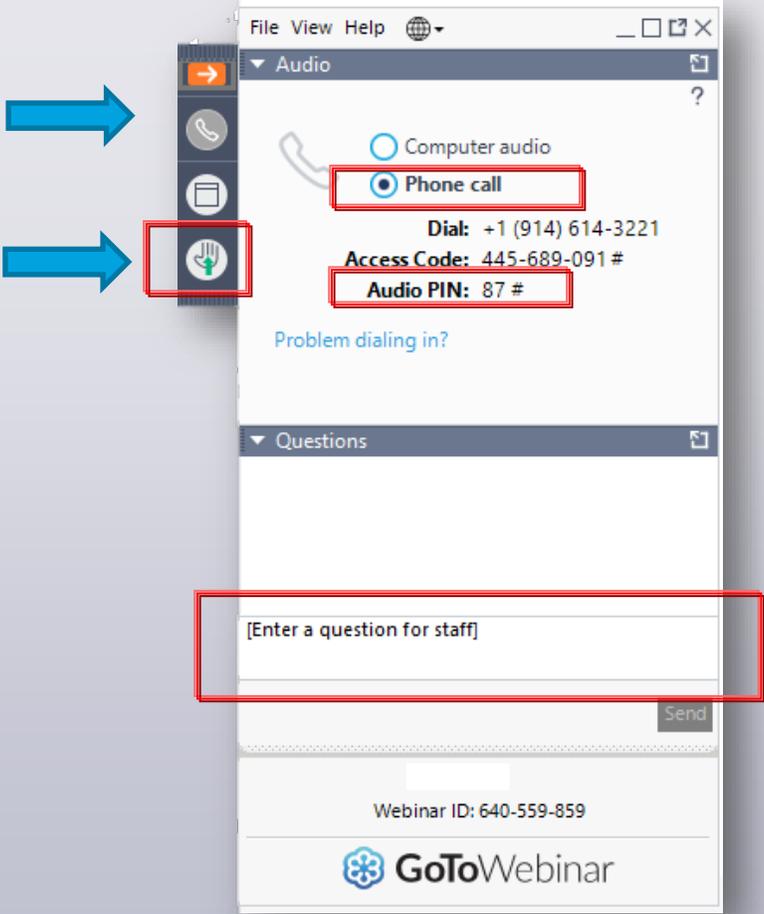
[Bill@owensconstruction.com](mailto:Bill@owensconstruction.com)

[www.owensconstruction.com](http://www.owensconstruction.com)

# Open Discussion

Open and close your **control panel**

Raise your **hand** to enter the discussion



Please use the **questions box** to submit questions, comments, or alert us of technical difficulties

If you have called in on a phone today, double check that you've selected telephone as your audio option.

# Closing Poll

- **After today's call, what will you do?**
  - Consider implementing one or more of the ideas discussed
  - Seek out additional information on one or more of the ideas
  - Make no changes to your current approach
  - Other (please explain)



U.S. DEPARTMENT OF ENERGY  
[ENERGY.GOV/STEMRISING](https://www.energy.gov/stemrising)

# Explore the Residential Program Solution Center

Resources to help improve your program and reach energy efficiency targets:

- [Handbooks](#) - explain *why* and *how* to implement specific stages of a program.
- [Quick Answers](#) - provide answers and resources for common questions.
- [Proven Practices](#) posts - include lessons learned, examples, and helpful tips from successful programs.
- [Technology Solutions](#) **NEW!** - present resources on advanced technologies, **HVAC & Heat Pump Water Heaters**, including installation guidance, marketing strategies, & potential savings.



<https://rpssc.energy.gov>

# Thank You!

Follow us to plug into the latest Better Buildings news and updates!



[Better Buildings Twitter](#) with [#BBResNet](#)



[Better Buildings LinkedIn](#)



[Office of Energy Efficiency and Renewable Energy Facebook](#)

Please send any follow-up questions  
or future call topic ideas to:  
[bbresidentialnetwork@ee.doe.gov](mailto:bbresidentialnetwork@ee.doe.gov)